UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/686,299	10/11/2000	John D. Frazier	NCRC-0015-US (9170)	5122

26890 7590 05/19/2004		EXAMINER
JAMES M. STOVER NCR CORPORATION 1700 SOUTH PATTERSON BLVD, WHQ4 DAYTON, OH 45479		JACOBS, LASHONDA T

ART UNIT	PAPER NUMBER
2157	7

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/686,299	FRAZIER ET AL.
	Examiner	Art Unit	
	LaShonda T. Jacobs	2157	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>23 April 2004</u>.
2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-26 and 30-38</u> is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-26 and 30-38</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a)☐ All b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

This Office Action is in response to Applicant's amendment filed on February 23, 2004. Claims

1-26 are presented for further examination. Claims 27-29 have been cancelled. Claims 30-38

are newly added by Applicants' are also presented for further examination.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   Claims **1-2, 4-5, 7-9, 13, 20-22, 25** and **30-33** are rejected under 35 U.S.C. 102(e) as

being anticipated by Boezeman et al (hereinafter, "Boezeman", 6,012,068).

As per claim **1**, Boezeman discloses a system comprising:

- an interface to receive a request from a client system for information in a database

    system (col. 6, lines 61-67 and col. 7, lines 1-29); and

- a controller to format metadata associated with the requested information into a format

    for display in the client system (col. 8, lines 16-25, lines 47-60 and col. 9, lines 14-55),

- the controller further to map plural data types in the database system to corresponding

    file types to enable presentation in the client system of an object having an associated

data type retrieved from the database system (col. 8, lines 38-60, col. 9, lines 14-55, col. 10, lines 33-65, col. 11, lines 5-25 and lines 38-49).

As per claim 2, Boezeman discloses:

- wherein the controller comprises a network communications service to receive the request from the client system (col. 7, lines 24-29 and col. 8, lines 16-25).

As per claim 4, Boezeman discloses:

- the controller to format the metadata into a predetermined format displayable by a browser (col. 11, lines 28-42, col. 15, lines 46-67, col. 16, lines 1-10 and lines 30-64).

As per claim 5, Boezeman discloses:

- wherein the predetermined format comprises a format selected from the group consisting of a Hypertext Markup Language format, an Extensible Markup Language format, and a Wireless Markup Language format (col. 3,lines 12-21).

As per claim 7, Boezeman discloses:

- wherein the plural data types comprise two or more of the following: audio data, video data, multimedia data, image data, and geospatial data (col. 9, lines 14-55).

As per claim 8, Boezeman further discloses:

- a storage element containing an object retrieved from the database system, the controller to communicate data in the object as a stream to the client system(col. 8, lines 61-65 and col. 9,lines 1-55).

As per claim 9, Boezeman discloses:

- wherein the controller communicates portions of the object to the client system in the

    stream so that the entire object need not be communicated to the client system for

    storage (col. 8, lines 61-65, col. 9,lines 1-55, lines 64-67 and col. 10, lines 1-14).

As per claim **13**, Boezeman discloses:

- wherein the metadata contains a description of plural objects in the database system

    (col. 9, lines 14-55).

As per claim **20**, Boezeman discloses an article comprising at least one storage medium

containing instructions that when executed cause a first system to:

- receive a request from a client system for data in a database (col. 6, lines 61-67 and

    col. 7, lines 1-29)

- retrieve the data from the database type (col. 8, lines 16-25, lines 47-60 and col. 9, lines

    14-55);

- determine a data type of the retrieved data and map the data type to a file type

    presentable by the client system type (col. 8, lines 16-25, lines 47-60 and col. 9, lines

    14-55); <u>and</u>

- <u>wherein mapping the data type to the file type comprises accessing a data structure that</u>

    <u>maps plural data types associated with data stored in the database with corresponding</u>

    <u>plural file types presentable by the client system</u> (col. 8, lines 38-60, col. 9,lines 14-55,

    col. 10, lines 33-65, col. 11, lines 5-25 and lines 38-49).

As per claim **21**, Boezeman discloses wherein the instructions when executed cause the first

system to:

- retrieve metadata describing the requested data (col. 8, lines 16-25, lines 47-60 and col. 9, lines 14-55); and

- format the metadata according to a predetermined format displayable by the client system (col. 8, lines 16-25, lines 47-60 and col. 9, lines 14-55).

As per claim **22**, Boezeman discloses:

- wherein the predetermined format comprises one of a Hypertext Markup Language format, an Extensible Markup Language format, and a Wireless Markup Language format (col. 3, lines 12-21).

As per claim **25**, Boezeman discloses:

- wherein the database stores rules pertaining to presentation of the data in the client system, the instructions when executed causing the first system to access the rules to map the data type to the file type (col. 8, lines 38-60, col. 9, lines 14-55, col. 10, lines 33-65, col. 11, lines 5-25 and lines 38-49).

As per claim **30**, Boezeman discloses:

- wherein the controller is adapted to communicate the requested information and executable code associated with the requested information to the client system, the executable code for presenting the requested information in the client system (col. 8, lines 38-60, col. 9, lines 14-55, col. 10, lines 33-65, col. 11, lines 5-25 and lines 38-49).

As per claim **31**, Boezeman discloses:

- wherein the controller is adapted to further receive presentation information stored in the database system, the presentation information defining a manner in which the

requested information is to be presented by the client system (col. 8, lines 38-60, col. 9, lines 14-55, col. 10, lines 33-65, col. 11, lines 5-25 and lines 38-49).

As per claim **32**, Boezeman discloses:

- wherein the controller is adapted to use the presentation information to map the data types to the file types (col. 8, lines 38-60, col. 9, lines 14-55, col. 10, lines 33-65, col. 11, lines 5-25 and lines 38-49).

As per claim **33**, Boezeman further discloses:

- a storage to store a data structure mapping plural data types of data stored in the database system to file types presentable by the client system (col. 8, lines 38-60, col. 9, lines 14-55, col. 10, lines 33-65, col. 11, lines 5-25 and lines 38-49).

3.   Claims **15-19, 23-26** and **34-38** are rejected under 35 U.S.C. 102(e) as being anticipated by Hobbs.

As per claim **15**, Hobbs discloses a method of accessing an object relational database, comprising:

- <u>loading an applet over a network from a server</u> (col. 8, lines 25-29, col. 14, lines 46-55 and col. 20, lines 30-55);

- <u>executing the applet to present an interactive interface in a browser display screen to receive user queries and to send requests for information from the object relational database in response to the user queries</u> (abstract, col. 10, lines 56-67, col. 10, lines 1-3, col. 14, lines 46-55, col. 20, lines 9-27 and lines 31-55);

- receiving metadata relating to requested information from the object relational database (abstract, col. 10, lines 10-30 and col. 15, lines 29-43);

- displaying at least a portion of the metadata as a hyperlink (col. 10, lines 31-43, col. 17, lines 33-48, col. 23, lines 40-50, lines 62-67 and col. 24, lines 1-12);

- in response to selection of the hyperlink, sending a request for an object in the object relational database, the object containing information associated with the selected metadata portion (col. 10, lines 31-43, col. 17, lines 33-48, col. 23, lines 40-50, lines 62-67 and col. 24, lines 1-12); and

- associating the object with one of plural presentation routines to present the information in the object (col. 21, lines 54-67, col. 22, lines 1-30 and lines 53-64).

As per claim **16**, Hobbs further discloses:

- displaying the metadata in the browser screen (col. 23, lines 2-20, lines 40-50, lines 62-67 and col. 24, lines 1-12).

As per claim **17**, Hobbs further discloses:

- associating plural data types stored in the object relational database with corresponding plural file types (col. 16, lines 34-59, col. 17,lines 1-11 and 23-48).

As per claim **18**, Hobbs discloses:

- wherein associating the object with one of plural presentation routines is based on the file type of the object (col. 21, lines 54-67, col. 22, lines 1-30 and lines 53-64).

As per claim **19**, Hobbs further discloses:

- invoking the one presentation routine as a plug-in to a browser (col. 21, lines 47-67, col. 22, lines 1-30 and lines 53-64).

As per claim **23**, Hobbs discloses:

- wherein the metadata comprises a hyperlink, the instructions when executed causing the first system to receive activation of the hyperlink and to retrieve the data in response to the activation of the hyperlink (col. 10, lines 31-43, col. 17, lines 33-48, col. 23, lines 40-50, lines 62-67 and col. 24, lines 1-12).

As per claim **24**, Hobbs discloses:

- wherein the instructions when executed cause the first system to retrieve an object from an object relational database (col. 21, lines 47-67, col. 22, lines 1-30 and lines 53-64).

As per claim **26**, Hobbs discloses a database system comprising:

- one or more storage devices containing an applet and a document (abstract, col. 10, lines 56-67, col. 10, lines 1-3, col. 14, lines 46-55, col. 20, lines 9-27 and lines 31-55);

- an interface to a network (col. 12, lines 40-54, col. 13, lines 66-67 and col. 14, lines 1-16); and

- a controller to communicate the document to a client device, the document containing data defining a page displayable in a browser screen, and the applet containing instructions that when executed provide an interactive portion of the browser screen <u>to enable user entry of Structured Query Language (SQL) queries the applet responsive to SQL queries entered in the interactive portion of the browser screen by sending corresponding requests for accessing data in a database system</u> (abstract, col. 10, lines 56-67, col. 10, lines 1-3, col. 14, lines 46-55, col. 20, lines 9-27 and lines 31-55).

As per claim **34**, Hobbs further discloses:

- receiving at least one of a Hypertext Markup Language (HTML), Extensible Markup

  Language (XML) and Wireless Markup Language (WML) file to present the browser

  display screen (col. 10, lines 10-30 and col. 18, lines 3-36).

As per claim **35**, Hobbs discloses:

- wherein the at least one of the HTML, XML and WML file causes a first frame to be

  presented in the browser display screen, the method further comprising invoking the

  applet in response to user selection of an element in the first frame (col. 21, lines 54-67,

  col. 22, lines 1-30 and lines 53-64),

- wherein the interactive interface is presented in a second frame in the browser display

  screen (col. 21, lines 54-67, col. 22, lines 1-30 and lines 53-64).

As per claim **36**, Hobbs discloses:

- wherein the instructions when executed cause the first system to communicate

  executable code stored in the database and associated with the retrieved data to the

  client system, the executable code for presenting the retrieved data in the client system

  (abstract, col. 10, lines 56-67, col. 10, lines 1-3, col. 14, lines 46-55, col. 20, lines 9-27

  and lines 31-55).

As per claim **37**, Hobbs discloses:

- wherein the applet is invoke in response to user selection of an element in a first frame

  of the browser screen, the interactive portion being part of a second frame of the

  browser screen (abstract, col. 10, lines 56-67, col. 10, lines 1-3, col. 14, lines 46-55, col.

  20, lines 9-27 and lines 31-55).

As per claim **38**, Hobbs discloses:

- wherein the browser screen comprises a third frame to display a result page in response

  to a request for data in the database system, the result page containing at least one

  hyperlink selectable by a user to retrieve an object from the database system (col. 10,

  lines 31-43, col. 17, lines 33-48, col. 23, lines 40-50, lines 62-67 and col. 24, lines 1-

  12).

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   Claims **3, 6, 10-12** and **14** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Boezeman in view of Hobbs.

As per claim **3**, Boezeman discloses the invention substantially as claimed.

However, Boezeman does not explicitly disclose:

- wherein the network communications service comprises a Hypertext Transport Protocol

  service.

Hobbs discloses a method and apparatus for selectively augmenting retrieved text,

numbers, maps, charts, still or moving pictures, graphic and audio information from a network

resource including:

- wherein the network communications service comprises a Hypertext Transport Protocol

  service (col. 10, lines 10-33, col. 12, lines 40-54 and lines 64-65).

Given the teaching of Hobbs, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Boezeman by incorporating or implementing an Hypertext Transport Protocol (HTTP) as the communication protocol in order to establish communication between the client and remote servers in a timely and efficient manner.

As per claim 6, Boezeman discloses the invention substantially as claimed.

However, Boezeman does not explicitly disclose:

- wherein the database system comprises an object relational database system.

Hobbs discloses a method and apparatus for selectively augmenting retrieved text, numbers, maps, charts, still or moving pictures, graphic and audio information from a network resource including:

- wherein the database system comprises an object relational database system (abstract).

Given the teaching of Hobbs, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Boezeman by incorporating or implementing an object-oriented database (ODBA) or relational database management systems (RDMS) in order to link multimedia information across a network allowing a user/client to directly access the database to retrieve and view multimedia information in a timely manner.

As per claim 10, Boezeman discloses the invention substantially as claimed.

However, Boezeman does not explicitly disclose:

- wherein the metadata comprises a hyperlink.

Hobbs discloses a method and apparatus for selectively augmenting retrieved text, numbers, maps, charts, still or moving pictures, graphic and audio information from a network resource including:

- wherein the metadata comprises a hyperlink (col. 10,lines 31-43, col. 17, lines 33-48,

  col. 23, lines 40-50, lines 62-67 and col. 24, lines 1-12).

Given the teaching of Hobbs, it would have been obvious to one of ordinary skill in the art

at the time the invention was made to modify Boezeman by associating a hyperlink with the

metadata allowing a user to select the hyperlink to retrieve and view the metadata in a timely

manner.

As per claim **11**, Boezeman discloses the invention substantially as claimed.

However, Boezeman does not explicitly disclose:

- the interface to receive a second request indicating selection of the hyperlink, the

  hyperlink corresponding to the object in the database system.

Hobbs discloses a method and apparatus for selectively augmenting retrieved text,

numbers, maps, charts, still or moving pictures, graphic and audio information from a network

resource including:

- the interface to receive a second request indicating selection of the hyperlink, the

  hyperlink corresponding to the object in the database system (col. 10, lines 31-43, col.

  17, lines 33-48, col. 23, lines 40-50, lines 62-67 and col. 24, lines 1-12).

Given the teaching of Hobbs, it would have been obvious to one of ordinary skill in the art

at the time the invention was made to modify Boezeman by associating a hyperlink with the

metadata allowing a user to select the hyperlink to retrieve and view the metadata in a timely

manner.

As per claim **12**, Boezeman discloses:

- the controller to determine a data type of the object and to map the data type to a

    corresponding file type (col. 8, lines 38-60, col. 9, lines 14-55, col. 10, lines 33-65, col.

    11, lines 5-25 and lines 38-49).

As per claim **14**, Boezeman discloses the invention substantially as claimed.

However, Boezeman does not explicitly disclose:

- wherein the description comprises hyperlinks corresponding to the plural objects.

Hobbs discloses a method and apparatus for selectively augmenting retrieved text,

numbers, maps, charts, still or moving pictures, graphic and audio information from a network

resource including:

- wherein the description comprises hyperlinks corresponding to the plural objects .

- (col. 10, lines 31-43, col. 17, lines 33-48, col. 23, lines 40-50, lines 62-67 and col. 24,

    lines 1-12).

Given the teaching of Hobbs, it would have been obvious to one of ordinary skill in the art

at the time the invention was made to modify Boezeman by associating a hyperlink with the

metadata allowing a user to select the hyperlink to retrieve and view the metadata in a timely

manner.

Response to Arguments

6.   Applicant's arguments with respect to claims 1-26 and 30-38 have been considered but

are moot in view of the new ground(s) of rejection.

The Office notes the following arguments:

(a) Eberman fails to disclose a controller to map plural data types in a database system to corresponding file types to enable presentation in a client system of an object having an associated data type retrieved from the database system.

(b) Eberman fails to disclose loading an applet over a network from a server and executing the applet to present an interactive interface in a browser display to receive queries and to send requests for information in response to user queries.

(c) Eberman fails to disclose mapping a data type of data retrieved from a database to file type presentable by a client system that involves the accessing of a data structure that maps plural data types associated with data stored in the database with corresponding plural file types presentable by the client system.

(d) Andersen does not disclose an applet that contains instructions that when executed provide an interactive portion of a browser screen to enable user entry of the Structured Query Language (SQL) queries, where the applet is responsive to SQL queries entered in the interactive portion of the browser screen by sending corresponding requests for accessing data in a database system.

(e) Andersen does not disclose that its JAVA applet is responsive to SQL queries entered in an interactive portion of a browser screen provided by the applet.

In response to:

(a)-(e) Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 6,360,215 to Judd et al

U.S. Pat. No. 6,665,657 to Dibachi

U.S. pat. No. 6,681,227 to Kojima et al

U.S. Pub. No. 2002/0026443 to Chang et al

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to LaShonda T. Jacobs whose telephone number is 703-305-7494.

The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ario Etienne can be reached on 703-308-7562. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-305-3900.

LaShonda T. Jacobs
Examiner
Art Unit 2157

ltj
May 7, 2004
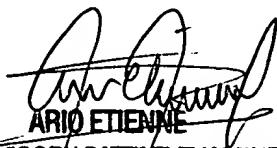
ARIO ETIENNE
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